Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-2 (canceled)

Claim 3 (currently amended) A low dispersion interleaver assembly comprising:

a first interleaver stage having three birefringent elements;

a second interleaver stage having three birefringent elements;

a polarization selection element disposed between the first interleaver stage and the second interleaver stage;

wherein the angular orientations and phase delays of the birefringent elements in the first interleaver stage and the second interleaver stage are configured so as to cooperate to provide a dispersion vs. wavelength curve wherein the dispersion value for the first interleaver stage is approximately opposite in value to a dispersion value at the same wavelength for the second interleaver, so as to mitigate dispersion in the interleaver assembly;

wherein the angular orientations and the phase delays of the birefringent elements are selected from a single row of the table:

Table I

First Stage Phase Delays	First Stage Orientations	Second Stage Phase Delays	Second Stage Orientations
$\Gamma, 2\Gamma, 2\Gamma$	$\varphi_1, \varphi_2, \varphi_3$	$\Gamma, 2\Gamma, 2\Gamma$	$90°\pm\varphi_1, 90°\pm\varphi_2, 90°\pm\varphi_3$ (parallel component) $90°\pm\varphi_1, 90°\pm\varphi_2, 90°\pm\varphi_3$ (orthogonal component)
$2\Gamma, 2\Gamma, \Gamma$	$\varphi_3, \varphi_2, \varphi_1$	$2\Gamma, 2\Gamma, \Gamma$	$90°\pm\varphi_3, 90°\pm\varphi_2, 90°\pm\varphi_1$ (parallel component) $90°\pm\varphi_3, 90°\pm\varphi_2, 90°\pm\varphi_1$ (orthogonal component)
$\Gamma, 2\Gamma, 2\Gamma$	$\varphi_1, \varphi_2, \varphi_3$	$2\Gamma, 2\Gamma, \Gamma$	$90°\pm\varphi_3, 90°\pm\varphi_2, 90°\pm\varphi_1$ (parallel component) $\pm\varphi_3, \pm\varphi_2, \pm\varphi_1$ (orthogonal component)
$2\Gamma, 2\Gamma, \Gamma$	$\varphi_3, \varphi_2, \varphi_1$	$\Gamma, 2\Gamma, 2\Gamma$	$90°\pm\varphi_1, 90°\pm\varphi_2, 90°\pm\varphi_3$ (parallel component) $\pm\varphi_1, \pm\varphi_2, \pm\varphi_3$ (orthogonal component)

wherein the orientations of the birefringent elements of each stage correspond to the phase delays of the birefringent elements of the same stage in the order listed in the table; and

wherein a birefringent element of orientation $\pm\varphi_1$ or $90° \pm\varphi_1$ has phase delay Γ, wherein a birefringent element of orientation $\pm\varphi_2$ or $90° \pm\varphi_2$ has phase delay 2Γ, wherein a birefringent element of orientation $\pm\varphi_3$ or $90° \pm\varphi_3$ has phase delay 2Γ, and wherein the birefringent elements are arranged in the order listed in the table.

Claim 4 (currently amended) A low dispersion interleaver assembly comprising:

a first interleaver stage having three birefringent elements;

a second interleaver stage having three birefringent elements;

a polarization selection element disposed between the first interleaver stage and the second interleaver stage;

wherein the angular orientations and phase delays of the birefringent elements in the first interleaver stage and the second interleaver stage are configured so as to cooperate to provide a dispersion vs. wavelength curve wherein the dispersion value for the first interleaver stage is approximately opposite in value to a dispersion value at the same wavelength for the second interleaver, so as to mitigate dispersion in the interleaver assembly;

wherein the angular orientations and the phase delays of the birefringent elements are selected from a single row of the table:

Table II

First Stage Phase Delays	First Stage Orientations	Second Stage Phase Delays	Second Stage Orientations
$\Gamma + 2m_1\,\pi$, $2\Gamma + 2m_2\,\pi$, $2\Gamma + 2m_3\,\pi$	$\varphi_1, \varphi_2, \varphi_3$	$\Gamma + 2k_1\,\pi$, $2\Gamma + 2k_2\,\pi$, $2\Gamma + 2k_3\,\pi$	$90°\pm\varphi_1, 90°\pm\varphi_2, 90°\pm\varphi_3$ (parallel component) $90°\pm\varphi_1, 90°\pm\varphi_2, 90°\pm\varphi_3$ (orthogonal component)
$\Gamma + 2m_1\,\pi$, $2\Gamma + 2m_2\,\pi$, $2\Gamma + 2m_3\,\pi$	$\varphi_1, \varphi_2, \varphi_3$	$2\Gamma + 2k_3\,\pi$, $2\Gamma + 2k_2\,\pi$, $\Gamma + 2k_1\,\pi$	$90°\pm\varphi_3, 90°\pm\varphi_2, 90°\pm\varphi_1$ (parallel component) $\pm\varphi_3, \pm\varphi_2, \pm\varphi_1$ (orthogonal component)
$\Gamma + 2m_1\,\pi$, $2\Gamma + 2m_2\,\pi$, $2\Gamma + 2m_3\,\pi$	$\varphi_1, \varphi_2, \varphi_3$	$\Gamma + (2k_1 + 1)\,\pi$, $2\Gamma + 2k_2\,\pi$, $2\Gamma + 2k_3\,\pi$	$\pm\varphi_1, \pm\varphi_2, \pm\varphi_3$ (parallel component) $\pm\varphi_1, \pm\varphi_2, \pm\varphi_3$ (orthogonal component)

First Stage Phase Delays	First Stage Orientations	Second Stage Phase Delays	Second Stage Orientations
$\Gamma + 2m_1\,\pi$, $2\Gamma + 2m_2\,\pi$, $2\Gamma + 2m_3\,\pi$	$\varphi_1, \varphi_2, \varphi_3$	$2\Gamma + 2k_3\,\pi$, $2\Gamma + 2k_2\,\pi$, $\Gamma + (2k_1+1)\,\pi$	$90° \pm \varphi_3, 90° \pm \varphi_2, 90° \pm \varphi_1$ (parallel component) $\pm\varphi_3, \pm\varphi_2, \pm\varphi_1$ (orthogonal component)
$2\Gamma + 2m_3\,\pi$, $2\Gamma + 2m_2\,\pi$, $\Gamma + 2m_1\,\pi$	$\varphi_3, \varphi_2, \varphi_1$	$2\Gamma + 2k_3\,\pi$, $2\Gamma + 2k_2\,\pi$, $\Gamma + 2k_1\,\pi$	$90° \pm \varphi_3, 90° \pm \varphi_2, 90° \pm \varphi_1$ (parallel component) $90° \pm \varphi_3, 90° \pm \varphi_2, 90° \pm \varphi_1$ (orthogonal component)
$2\Gamma + 2m_3\,\pi$, $2\Gamma + 2m_2\,\pi$, $\Gamma + 2m_1\,\pi$	$\varphi_3, \varphi_2, \varphi_1$	$\Gamma + 2k_1\,\pi$, $2\Gamma + 2k_2\,\pi$, $2\Gamma + 2k_3\,\pi$	$90° \pm \varphi_1, 90° \pm \varphi_2, 90° \pm \varphi_3$ (parallel component) $\pm\varphi_1, \pm\varphi_2, \pm\varphi_3$ (orthogonal component)
$2\Gamma + 2m_3\,\pi$, $2\Gamma + 2m_2\,\pi$, $\Gamma + 2m_1\,\pi$	$\varphi_3, \varphi_2, \varphi_1$	$\Gamma + (2k_1+1)\,\pi$, $2\Gamma + 2k_2\,\pi$, $2\Gamma + 2k_3\,\pi$	$\pm\varphi_1, \pm\varphi_2, \pm\varphi_3$ (parallel component) $90° \pm \varphi_1, 90° \pm \varphi_2, 90° \pm \varphi_3$ (orthogonal component)
$2\Gamma + 2m_3\,\pi$, $2\Gamma + 2m_2\,\pi$, $\Gamma + 2m_1\,\pi$	$\varphi_3, \varphi_2, \varphi_1$	$2\Gamma + 2k_3\,\pi$, $2\Gamma + 2k_2\,\pi$, $\Gamma + (2k_1+1)\,\pi$	$90° \pm \varphi_3, 90° \pm \varphi_2, 90° \pm \varphi_1$ (parallel component) $90° \pm \varphi_3, 90° \pm \varphi_2, 90° \pm \varphi_1$ (orthogonal component)
$\Gamma + (2m_1+1)\,\pi$, $2\Gamma + 2m_2\,\pi$, $2\Gamma + 2m_3\,\pi$	$\varphi_1, \varphi_2, \varphi_3$	$\Gamma + 2k_1\,\pi$, $2\Gamma + 2k_2\,\pi$, $2\Gamma + 2k_3\,\pi$	$\pm\varphi_1, \pm\varphi_2, \pm\varphi_3$ (parallel component) $\pm\varphi_1, \pm\varphi_2, \pm\varphi_3$ (orthogonal component)
$\Gamma + (2m_1+1)\,\pi$, $2\Gamma + 2m_2\,\pi$, $2\Gamma + 2m_3\,\pi$	$\varphi_1, \varphi_2, \varphi_3$	$2\Gamma + 2k_3\,\pi$, $2\Gamma + 2k_2\,\pi$, $\Gamma + 2k_1\,\pi$	$90° \pm \varphi_3, 90° \pm \varphi_2, 90° \pm \varphi_1$ (parallel component) $\pm\varphi_3, \pm\varphi_2, \pm\varphi_1$ (orthogonal component)
$\Gamma + (2m_1+1)\,\pi$, $2\Gamma + 2m_2\,\pi$, $2\Gamma + 2m_3\,\pi$	$\varphi_1, \varphi_2, \varphi_3$	$\Gamma + (2k_1+1)\,\pi$, $2\Gamma + 2k_2\,\pi$, $2\Gamma + 2k_3\,\pi$	$90° \pm \varphi_1, 90° \pm \varphi_2, 90° \pm \varphi_3$ (parallel component) $90° \pm \varphi_1, 90° \pm \varphi_2, 90° \pm \varphi_3$ (orthogonal component)
$\Gamma + (2m_1+1)\,\pi$, $2\Gamma + 2m_2\,\pi$, $2\Gamma + 2m_3\,\pi$	$\varphi_1, \varphi_2, \varphi_3$	$2\Gamma + 2k_3\,\pi$, $2\Gamma + 2k_2\,\pi$, $\Gamma + (2k_1+1)\,\pi$	$90° \pm \varphi_3, 90° \pm \varphi_2, 90° \pm \varphi_1$ (parallel component) $\pm\varphi_3, \pm\varphi_2, \pm\varphi_1$ (orthogonal component)
$2\Gamma + 2m_3\,\pi$, $2\Gamma + 2m_2\,\pi$, $\Gamma + (2m_1+1)\,\pi$	$\varphi_3, \varphi_2, \varphi_1$	$\Gamma + 2k_1\,\pi$, $2\Gamma + 2k_2\,\pi$, $2\Gamma + 2k_3\,\pi$	$\pm\varphi_1, \pm\varphi_2, \pm\varphi_3$ (parallel component) $90° \pm \varphi_1, 90° \pm \varphi_2, 90° \pm \varphi_3$ (orthogonal component)
$2\Gamma + 2m_3\,\pi$, $2\Gamma + 2m_2\,\pi$, $\Gamma + (2m_1+1)\,\pi$	$\varphi_3, \varphi_2, \varphi_1$	$2\Gamma + 2k_3\,\pi$, $2\Gamma + 2k_2\,\pi$, $\Gamma + 2k_1\,\pi$	$90° \pm \varphi_3, 90° \pm \varphi_2, 90° \pm \varphi_1$ (parallel component) $90° \pm \varphi_3, 90° \pm \varphi_2, 90° \pm \varphi_1$ (orthogonal component)
$2\Gamma + 2m_3\,\pi$, $2\Gamma + 2m_2\,\pi$, $\Gamma + (2m_1+1)\,\pi$	$\varphi_3, \varphi_2, \varphi_1$	$\Gamma + (2k_1+1)\,\pi$, $2\Gamma + 2k_2\,\pi$, $2\Gamma + 2k_3\,\pi$	$90° \pm \varphi_1, 90° \pm \varphi_2, 90° \pm \varphi_3$ (parallel component) $\pm\varphi_1, \pm\varphi_2, \pm\varphi_3$ (orthogonal component)
$2\Gamma + 2m_3\,\pi$, $2\Gamma + 2m_2\,\pi$, $\Gamma + (2m_1+1)\,\pi$	$\varphi_3, \varphi_2, \varphi_1$	$2\Gamma + 2k_3\,\pi$, $2\Gamma + 2k_2\,\pi$, $\Gamma + (2k_1+1)\,\pi$	$90° \pm \varphi_3, 90° \pm \varphi_2, 90° \pm \varphi_1$ (parallel component) $90° \pm \varphi_3, 90° \pm \varphi_2, 90° \pm \varphi_1$ (orthogonal component)

wherein m_1, m_2, m_3, k_1, k_2, k_3 are integers $(0, \pm1, \pm2, \ldots)$; and

wherein the orientations of the birefringent elements of each stage correspond to the phase delays of the birefringent elements of the same stage in the order listed in the table; and

wherein in the first interleaver stage, a birefringent element of orientation φ_1 has phase delay $\Gamma+2m_1\pi$ or $\Gamma+(2m_1+1)\pi$, a birefringent element of orientation φ_2 has phase delay $2\Gamma+2m_2\pi$, and a birefringent element of orientation φ_3 has phase delay $2\Gamma+2m_3\pi$, and wherein the birefringent elements are arranged in the order listed in the table; and

wherein in the second interleaver stage, a birefringent element of orientation $\pm\varphi_1$ or $90° \pm\varphi_1$ has phase delay $\Gamma+2k_1\pi$ or $\Gamma+(2k_1+1)\pi$, a birefringent element of orientation $\pm\varphi_2$ or $90° \pm\varphi_2$ has phase delay $2\Gamma+2k_2\pi$, a birefringent element of orientation $\pm\varphi_3$ or $90° \pm\varphi_3$ has phase delay $2\Gamma+2k_3\pi$, and wherein the birefringent elements are arranged in the order listed in the table.

Claim 5 (canceled)

Claim 6 (currently amended) A <u>method for making a</u> low dispersion interleaver assembly, <u>the method</u> comprising:

<u>providing</u> a first interleaver stage having two birefringent elements;

<u>providing</u> a second interleaver stage having two birefringent elements;

<u>placing a polarization selection element between the first interleaver stage and the second interleaver stage;</u>

wherein the angular orientations and phase delays of the birefringent elements in the first interleaver stage and the second interleaver stage are configured so as to cooperate to provide a dispersion vs. wavelength curve wherein the dispersion value for the first interleaver stage is approximately opposite in value to a dispersion value at the same wavelength for the second interleaver, so as to mitigate dispersion in the interleaver assembly;

~~wherein~~ <u>selecting</u> the angular orientations and the phase delays of the birefringent elements ~~are selected~~ from a single row of the table:

First Stage Phase Delays	First Stage Orientations	Second Stage Phase Delays	Second Stage Orientations
Γ, 2Γ	φ_1, φ_2	Γ, 2Γ	$90°\pm\varphi_1$, $90°\pm\varphi_2$ (parallel component) $90°\pm\varphi_1$, $90°\pm\varphi_2$ (orthogonal component)
2Γ, Γ	φ_2, φ_1	2Γ, Γ	$90°\pm\varphi_2$, $90°\pm\varphi_1$ (parallel component) $90°\pm\varphi_2$, $90°\pm\varphi_1$ (orthogonal component)
Γ, 2Γ	φ_1, φ_2	2Γ, Γ	$90°\pm\varphi_2$, $90°\pm\varphi_1$ (parallel component) $\pm\varphi_2$, $\pm\varphi_1$ (orthogonal component)
2Γ, Γ	φ_2, φ_1	Γ, 2Γ	$90°\pm\varphi_1$, $90°\pm\varphi_2$ (parallel component) $\pm\varphi_1$, $\pm\varphi_2$ (orthogonal component)

wherein the orientations of the birefringent elements of each stage correspond to the phase delays of the birefringent elements of the same stage in the order listed in the table; and

wherein a birefringent element of orientation $\pm\varphi_1$ or $90° \pm\varphi_1$ has phase delay Γ, wherein a birefringent element of orientation $\pm\varphi_2$ or $90° \pm\varphi_2$ has phase delay 2Γ, and wherein the birefringent elements are arranged in the order listed in the table.

Claim 7 (currently amended) A method for making a low dispersion interleaver assembly, the method comprising:

providing a first interleaver stage having two birefringent elements;

providing a second interleaver stage having two birefringent elements;

placing a polarization selection element between the first interleaver stage and the second interleaver stage;

wherein the angular orientations and phase delays of the birefringent elements in the first interleaver stage and the second interleaver stage are configured so as to cooperate to provide a dispersion vs. wavelength curve wherein the dispersion value for the first interleaver stage is approximately opposite in value to a dispersion value at the same wavelength for the second interleaver, so as to mitigate dispersion in the interleaver assembly;

~~wherein~~ selecting the angular orientations and the phase delays of the birefringent elements ~~are selected~~ from a single row of the table:

First Stage Phase Delays	First Stage Orientations	Second Stage Phase Delays	Second Stage Orientations
$\Gamma + 2m_1\,\pi$, $2\Gamma + 2m_2\,\pi$	φ_1, φ_2	$\Gamma + 2k_1\,\pi$, $2\Gamma + 2k_2\,\pi$	$90° \pm \varphi_1, 90° \pm \varphi_2$ (parallel component) $90° \pm \varphi_1, 90° \pm \varphi_2$ (orthogonal component)
$\Gamma + 2m_1\,\pi$, $2\Gamma + 2m_2\,\pi$	φ_1, φ_2	$2\Gamma + 2k_2\,\pi$, $\Gamma + 2k_1\,\pi$	$90° \pm \varphi_2, 90° \pm \varphi_1$ (parallel component) $\pm \varphi_2, \pm \varphi_1$ (orthogonal component)
$\Gamma + 2m_1\,\pi$, $2\Gamma + 2m_2\,\pi$	φ_1, φ_2	$\Gamma + (2k_1 + 1)\,\pi$, $2\Gamma + 2k_2\,\pi$	$\pm \varphi_1, \pm \varphi_2$ (parallel component) $\pm \varphi_1, \pm \varphi_2$ (orthogonal component)
$\Gamma + 2m_1\,\pi$, $2\Gamma + 2m_2\,\pi$	φ_1, φ_2	$2\Gamma + 2k_2\,\pi$, $\Gamma + (2k_1 + 1)\,\pi$	$90° \pm \varphi_2, 90° \pm \varphi_1$ (parallel component) $\pm \varphi_2, \pm \varphi_1$ (orthogonal component)
$2\Gamma + 2m_2\,\pi$, $\Gamma + 2m_1\,\pi$	φ_2, φ_1	$2\Gamma + 2k_2\,\pi$, $\Gamma + 2k_1\,\pi$	$90° \pm \varphi_2, 90° \pm \varphi_1$ (parallel component) $90° \pm \varphi_2, 90° \pm \varphi_1$ (orthogonal component)
$2\Gamma + 2m_2\,\pi$, $\Gamma + 2m_1\,\pi$	φ_2, φ_1	$\Gamma + 2k_1\,\pi$, $2\Gamma + 2k_2\,\pi$	$90° \pm \varphi_1, 90° \pm \varphi_2$ (parallel component) $\pm \varphi_1, \pm \varphi_2$ (orthogonal component)
$2\Gamma + 2m_2\,\pi$, $\Gamma + 2m_1\,\pi$	φ_2, φ_1	$\Gamma + (2k_1 + 1)\,\pi$, $2\Gamma + 2k_2\,\pi$	$\pm \varphi_1, \pm \varphi_2$ (parallel component) $90° \pm \varphi_1, 90° \pm \varphi_2$ (orthogonal component)
$2\Gamma + 2m_2\,\pi$, $\Gamma + 2m_1\,\pi$	φ_2, φ_1	$2\Gamma + 2k_2\,\pi$, $\Gamma + (2k_1 + 1)\,\pi$	$90° \pm \varphi_2, 90° \pm \varphi_1$ (parallel component) $90° \pm \varphi_2, 90° \pm \varphi_1$ (orthogonal component)
$\Gamma + (2m_1+1)\,\pi$, $2\Gamma + 2m_2\,\pi$	φ_1, φ_2	$\Gamma + 2k_1\,\pi$, $2\Gamma + 2k_2\,\pi$	$\pm \varphi_1, \pm \varphi_2$ (parallel component) $\pm \varphi_1, \pm \varphi_2$ (orthogonal component)
$\Gamma + (2m_1+1)\,\pi$, $2\Gamma + 2m_2\,\pi$	φ_1, φ_2	$2\Gamma + 2k_2\,\pi$, $\Gamma + 2k_1\,\pi$	$90° \pm \varphi_2, 90° \pm \varphi_1$ (parallel component) $\pm \varphi_2, \pm \varphi_1$ (orthogonal component)
$\Gamma + (2m_1+1)\,\pi$, $2\Gamma + 2m_2\,\pi$	φ_1, φ_2	$\Gamma + (2k_1 + 1)\,\pi$, $2\Gamma + 2k_2\,\pi$	$90° \pm \varphi_1, 90° \pm \varphi_2$ (parallel component) $90° \pm \varphi_1, 90° \pm \varphi_2$ (orthogonal component)
$\Gamma + (2m_1+1)\,\pi$, $2\Gamma + 2m_2\,\pi$	φ_1, φ_2	$2\Gamma + 2k_2\,\pi$, $\Gamma + (2k_1 + 1)\,\pi$	$90° \pm \varphi_2, 90° \pm \varphi_1$ (parallel component) $\pm \varphi_2, \pm \varphi_1$ (orthogonal component)
$2\Gamma + 2m_2\,\pi$, $\Gamma + (2m_1+1)\,\pi$	φ_2, φ_1	$\Gamma + 2k_1\,\pi$, $2\Gamma + 2k_2\,\pi$	$\pm \varphi_1, \pm \varphi_2$ (parallel component) $90° \pm \varphi_1, 90° \pm \varphi_2$ (orthogonal component)
$2\Gamma + 2m_2\,\pi$, $\Gamma + (2m_1+1)\,\pi$	φ_2, φ_1	$2\Gamma + 2k_2\,\pi$, $\Gamma + 2k_1\,\pi$	$90° \pm \varphi_2, 90° \pm \varphi_1$ (parallel component) $90° \pm \varphi_2, 90° \pm \varphi_1$ (orthogonal component)
$2\Gamma + 2m_2\,\pi$, $\Gamma + (2m_1+1)\,\pi$	φ_2, φ_1	$\Gamma + (2k_1 + 1)\,\pi$, $2\Gamma + 2k_2\,\pi$	$90° \pm \varphi_1, 90° \pm \varphi_2$ (parallel component) $\pm \varphi_1, \pm \varphi_2$ (orthogonal component)
$2\Gamma + 2m_2\,\pi$, $\Gamma + (2m_1+1)\,\pi$	φ_2, φ_1	$2\Gamma + 2k_2\,\pi$, $\Gamma + (2k_1 + 1)\,\pi$	$90° \pm \varphi_2, 90° \pm \varphi_1$ (parallel component) $90° \pm \varphi_2, 90° \pm \varphi_1$ (orthogonal component)

wherein m_1, m_2, m_3, k_1, k_2, k_3 are integers (0, ±1, ±2, . . .); and

wherein the orientations of the birefringent elements of each stage correspond to the phase delays of the birefringent elements of the same stage in the order listed in the table; and

wherein in the first interleaver stage, a birefringent element of orientation φ_1 has phase delay $\Gamma+2m_1\pi$ or $\Gamma+(2m_1+1)\pi$, a birefringent element of orientation φ_2 has phase delay $2\Gamma+2m_2\pi$, and wherein the birefringent elements are arranged in the order listed in the table; and

wherein in the second interleaver stage, a birefringent element of orientation $\pm\varphi_1$ or $90° \pm\varphi_1$ has phase delay $\Gamma+2k_1\pi$ or $\Gamma+(2k_1+1)\pi$, a birefringent element of orientation $\pm\varphi_2$ or $90° \pm\varphi_2$ has phase delay $2\Gamma+2k_2\pi$, and wherein the birefringent elements are arranged in the order listed in the table.